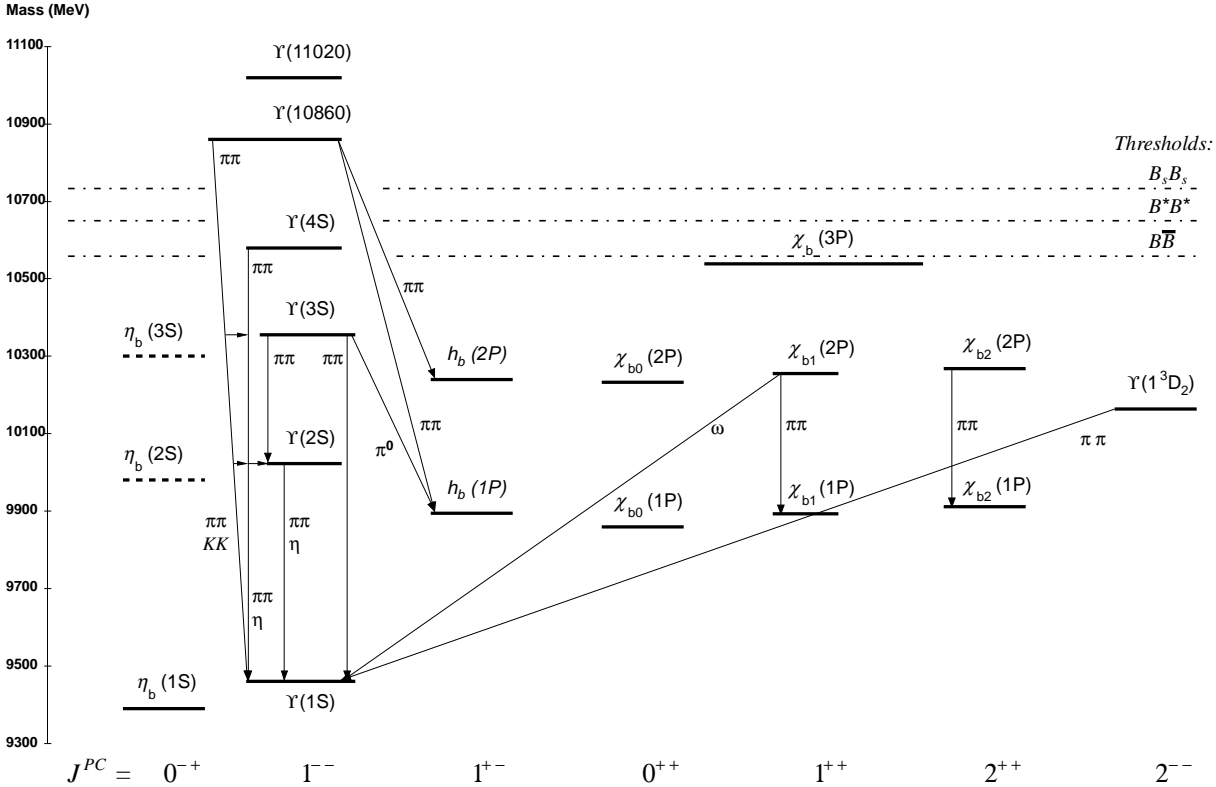


# THE BOTTOMONIUM SYSTEM



The level scheme of the  $b\bar{b}$  states showing experimentally established states with solid lines. Singlet states are called  $\eta_b$  and  $h_b$ , triplet states  $\Upsilon$  and  $\chi_{bJ}$ . In parentheses it is sufficient to give the radial quantum number and the orbital angular momentum to specify the states with all their quantum numbers. *E.g.*,  $h_b(2P)$  means  $2^1P_1$  with  $n = 2$ ,  $L = 1$ ,  $S = 0$ ,  $J = 1$ ,  $PC = +-.$  The figure shows observed hadronic transitions. The single photon transitions  $\Upsilon(nS) \rightarrow \gamma\eta_b(mS)$ ,  $\Upsilon(nS) \rightarrow \gamma\chi_{bJ}(mP)$ , and  $\chi_{bJ}(nP) \rightarrow \gamma\Upsilon(mS)$  are omitted for clarity.